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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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of 8 Sheet 1

	plete if Known
Application Number	09/644,387
Filing Date	August 23, 2000
First Named Inventor	Gregory Agoston, et al.
Group Art Unit	1616
Examiner Name	Badio, B.
Attorney Docket Number	05213-0541 (43170-219662)

				U.S. PATENT DOCUMENTS		
Examiner Initials	Cite No.1	U.S. Pater	t Document Kind Code ² (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BB	AA	2,584,271	ν	Huffman, Max N.	02-05-1952	
1	AB	2,846,453		Hoehn, Willard M.	08-05-1958	7
	AC	.3,410,879	V	Smith, Herchel, et. al.	11-12-1968	THE THE
	AD	3,470,218	/	Farah, Basil S.	09-30-1969	M S
	AE	3,492,321	V	Crabbe, Pierre	01-27-1970	SZO
	AF	3,496,272		Kruger, Gunther (Identifier only)	02-17-1970	CE NO CE
	AG	.3,956,348	V	Hilscher, Jean-Claude	05-11-1976	mi 😕 🚐
	AH	4,172,132	V	Draper, Richard W., et al.	10-23-1979	72
	AI	4,212,864	, , ,	Tax, Lambert J.W.M.	07-15-1980	/ED 2003 1800)
	AJ	4,307,086	V	Tax, Lamber J.W.M.	12-22-1981	
	AK	•4,522,758	V	Ward, John S., et al.	06-11-1985	12900
	AL	4,743,597	1	Javitt, Norman B., et al.	05-10-1988	8
	AM	4,994,443	V	Folkman, Moses, J., et al.	02-19-1991	
	AN	-5,001,116	V	Folkman, Moses J., et al.	03-19-1991	
	AO	- 5,504,074	1	D'Amato, Robert J., et al.	04-02-1996	
	AP	5,135,919	· V	Folkman, J., et al.	08-04-1992	
	AQ	5,521,168		Clark, Abbot F.	05-28-1996	
	AR	- 5,504,074	Κ,	D'Amato, Robert J., et al.	04-02-1996	
	AS	-5,521,168		Clark, A.	05-28-1996	
	AT	•5,621,124	1	Seilz, Carsten, et al.	04-15-1997	
	AU	• 5,643,900	-/	Fotsis, Theodore, et al.	07-01-1997	·
	AV	.5,661,143	V	D'Amato, Robert J., et al.	08-26-1997	
7	AW	.5,892,069		D'Amato, Robert John, et al.	04-06-1999	
	AX	.6,136,992	7	Ram, S., et al.	10-24-2000	
03	AY	-6,200,966		Stewart, Alastair G.	03-13-2001	

				FOR	REIGN PATENT DOCUMEN	NTS		
Examiner initials	Cite No.1	Office)	oreign Patent Doc Number	ument Kind Code ^s (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7*
73B		I W	O 90/15816	$\sqrt{}$	The UpJohn Company	12-27-1990		
.) /	AZ	.w	O 93/03729	1	Research Corporation Technologies, Inc.	03-04-1993		
	BA.	W	O 95/04535	~	The Children's Medical Center Corporation	02-16-1995		
हिंद	BB	W	O 98/40398	\checkmark	Pharm-Eco Laboratories, Inc.	09-17-1998		7.
	BC	D	3-3625315		Schering AG	-01-28-1988	To correct Engl	Sil
	-BD-	DI	E-1907330		Sandoz Ltd.	10-23-1969-	Stranslation	10
							Legeron	
Examiner Signature		70	adio			Date Considered	3/24/03	

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is t place a check mark here if English language translation is attached.

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Sheet 6 of 8

Com	plet if Known
Application Number	09/644,387
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First Named Inventor	Gregory Agoston, et al.
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Examiner Name	Badio, B.
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		OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposlum, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	7
	-GA-	Nambara, T., et al., "Studies on Steroid Conjugates. III. New Syntheses of 2-Methoxyestrogens" Chem.	Г
多日		Pharm. Bull., Vol. 18, No. 3, pp. 474-480 (1970)	
	GB	Napolitano, et al., "11 Beta-Substituted Estradiol Derivatives. 2. Potential Carbon-11-and Iodine-Labeled	
. \ ^	۸ ا	Probes for the Estrogen Receptor", J. Med. Chem., Vol. 38, No. 14, pp. 2774-2779 (July 7, 1995) (Abstract	l
1		Only)	
	GC	Nishigaki, et al., "Anti-Proliferative Effect of 2-Methoxyestradiol on Cultured Smooth Muscle Cells from	1-
🚩	'	Rabbit Aorta", Atherosclerosis, Vol. 113, pp. 167-170 (1995)	ı
	GD	Numazawa M. et al., "Efficient Synthesis of 2-Methoxy- and 4-Methoxy-Estrogens" J. Chem. Soc., pp. 533-	╁╌
	/	534 (1983)	ı
	GE	Oppolzer, et al., "177. The Enantioselective Synthesis of (+)-Estradiol from 1,3-Dihydrobenzo[c]thiophene-2,2-	┝
	1 /	dioxide by Successive Thermal SO ₂ -Extrusion and Cycloaddition Reactions", Helvetica Chimica Acta, Vol.	
1	1 '	63, pp. 1703-1707 (1980)	
_	6F	Parthasarathy, et al., "Antioxidant: A New Role for RU-486 and Related Compounds", J. Clin. Invest., Vol.	⊢
100	/	94, No. 5, pp. 1990-1995 (1994) (Abstract Only)	
1	1 '	, , , , , , , , , , , , , , , , , , ,	
	GG	Paull, et al., "Identification of Novel Antimitotic Agents Acting at the Tubulin Level by Computer-assisted	┞
1	100,	Evaluation of Differential Cytotoxicity Data", Cancer Research, Vol. 52, pp. 3892-3900 (July 15, 1992)	L
1	. /	Evaluation of Differential Cytotoxicity Data, Cancer Research, Vol. 32, pp. 3892-3900 (July 13, 1992)	1
			L
1	J.GH	Poli et al., "Tumor Necrosis Factor α Functions in an Autocrine Manner in the Induction of Human	
	/	Immunodeficiency Virus Expression", Proc. Natl. Acad. Sci. USA, Vol. 87, pp. 782-785 (January 1990)	
	1		1
1	GI	Rao, et al., "Structural Specificity of Estrogens in the Induction of Mitotic Chromatid Non-Disjunction in Hela	Г
1"	/	Cells", Experimental Cell Research, Vol. 48, pp. 71-81 (1967)	
- 1			1
	GJ	Rao, et al., "A Novel, Two-Step Synthesis of 2-Methoxyestadiol" Synthesis, pp. 168-169 (March 1977)	1
Z	/		
			ı
	GK	Ravindra, R., "Effect of Estradiol on the in vitro Assembly of Rat Brain Tubulin", J. Indian Inst. Sci., Vol. 64,	┞
	1	No. 3, pp. 27-35 (1983)	
1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	l
	GL	Sakakibara et al., "Effects of Diethylstilbestrol and its Methyl Ethers on Aneuploidy Induction and Microtubule	┞
1	1 օբ Հ	Distribution in Chinese Hamster V79 cells", Mutation Research, Vol. 263, pp. 269-276 (1991)	
1	1	Distribution in Chinese Hamster v /9 cens , <u>Mutation Research</u> , vol. 203, pp. 209-276 (1991)	l
	1		L
را	, GM√	,	
[1	Cells", Chem. Pharm. Bull., Vol. 40, No. 1, pp. 182-184 (1992)	1
- 1	.1		
	GN,	Sato et al., "Disruptive Effect of Diethylstilbestrol on Microtubules", Gann, Vol. 75, pp. 1046-1048 (1984)	Γ
Ţ	1 '	•	ĺ
83	1		1
		L	_

Examiner Signature	Badio	 Date Considered	3/24/3	
- 3		 Considered		

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Sheet 2 of 8

Com	plete if Known
Application Number	09/644,387
Filing Date	August 23, 2000
First Named Inventor	Greg ry Agoston, et al.
Group Art Unit	1616
Examiner Name	Badio, B.
Attorney Docket Number	05213-0541 (43170-219662)

Cite	Include name of the author (in CAPITAL LETTERS) title of the article (when connected) ##6 of the	
Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	L ₅
CA	cell line MCF-7", <u>Journal of Endocrinology</u> , Vol. 188, pp. 149-154 (July 1988)	
Aizu-Yokota, et al., "Natural Estrogens Induce Modulation of Microtubules in Chinese Hamster V79 Cells i Culture", Cancer Research, Vol. 55, pp. 1863-1868 (May 1, 1995)		
CC	Attalla, et al., "2-Methoxyestradiol Arrests Cells in Mitosis without Depolymerizing Tubulin", Biochem. and Biophys. Resch. Comm., Vol. 228, pp. 467-473 (1996)	
ED	Control by Corticosteroids but not Tumor Necrosis Factor", Shock, Vol. 3, No. 4, pp. 259-267 (April 1995) (Abstract Only)	
CE	trimethylacetate)", Steroids, Vol. 16, No. 3, pp.289-296 (1970) (Identifier Only)	
CF /	Cancer Cells", Cancer Researcher, Vol. 47, No. 5, pp. 1441-1448 (March 1, 1987) (Abstract Only)	
CG	Mikroskopie, Vol. 39, pp. 113-117 (May 1982)	
CH	Blagosklonny, et al. "Raf-1/bcl-2 Phosphorylation: A Step from Microtubule Damage to Cell Death", Cancer Research, Vol. 57, pp. 130-135 (January 1, 1997)	
CI	Blickenstaff, et al., "Estrogen-Catharanthus (Vinca) Alkaloid Conjugates", Cytotoxic Estrogens in Hormone Receptive Tumors, Academic Press, pp. 89-105 (1980)	
CU	Boyé et al., "185. Deaminocolchinyl Methyl Ether: Synthesis from 2,3,4,4'-Tetramethoxybiphenyl-2-carbaldehyde. Comparison of Antitubulin Effects of Deaminocolchinyl Methyl Ether and Dehydro Analogs", Helvetica Chimica Acta, Vol. 72, pp. 1690-1696 (1989)	
V	49, Nos. 4-6, pp. 281-287 (June 1994) (Abstract Only)	
CL	Endometrium Laboratory fore Gynecological Physiopathology, Vol. 14, No. 6, pp. 679-685 (December 1976)	
CM ✓	Castagnetta, Luigi, et al. "Simple Approach to Measure Metabolic Pathways of Steroid in Living Cells", <u>J.</u> Chromatogr. , Vol. 572, pp.25-39 (1991)	
CN ✓	Chasserot-Golaz, et al., "Biotransformation of 17.betahydroxy-11.beta(4-dimethylaminophenyl) 17.alpha.1-propynyl-estra-4, 9-dien-3-one (RU486) in Rat Hepatoma Variants", Biochem. Pharmacol., Vol. 46, No. 11, pp. 2100-2103 (1993) (Identifier Only)	
	CA') CB CC CF CG CH CC	CA' Adams, E.F. et al., "Steroidal regulation of oestradiol-17B dehydrogenase activity of the human breast cancer cell line MCF-7", Journal of Endocrinology, Vol. 188, pp. 149-154 (July 1988) CB Aizu-Yokota, et al., "Natural Estrogens Induce Modulation of Microtubules in Chinese Hamster V79 Cells in Culture", Cancer Research, Vol. 55, pp. 1863-1868 (May 1, 1995) CC Attalla, et al., "2-Methoxyestradiol Arrests Cells in Mitosis without Depolymerizing Tubulin", Biochem. and Biophys. Resch. Comm., Vol. 228, pp. 467-473 (1996) Ayala, et al. "The Induction of Accelerated Thymic Programmed Cell Death During Polymicrobial Sepsis: Control by Corticosteroids but not Tumor Necrosis Factor", Shock, Vol. 3, No. 4, pp. 259-267 (April 1995) (Abstract Only) CE Banik, et al., "Orally Active Long-Acting Estrogen (3-(2-propynyloxy)-estra-1,3,5 (10) – trien – 17.betaol trimethylacetate)", Steroids, Vol. 16, No. 3, pp. 289-296 (1970) (Identifier Only) CF Bardon, et al., "Steroid Receptor-Mediated Cytotoxicity of an Antiestrogen and an Antiprogestin in Breast Cancer Cells", Cancer Research, Vol. 47, No. 5, pp. 1441-1448 (March 1, 1987) (Abstract Only) CG Bhat, et al., "Estradiol-induced Mitotic Inhibition in the Bursa of Fabricius of Male Domestic Duckling", Mikroskopie, Vol. 39, pp. 113-117 (May 1982) CH Blagosklouny, et al. "Raf-I/bcl-2 Phosphorylation: A Step from Microtubule Damage to Cell Death", Cancer Research, Vol. 57, pp. 130-135 (January 1, 1997) CI Blickenstaff, et al., "Estrogen-Catharanthus (Vinca) Alkaloid Conjugates", Cytotoxic Estrogens in Hormone Receptive Tumors, Academic Press, pp. 89-105 (1980) CJ Boyé et al., "185. Deaminocolchinyl Methyl Ether: Synthesis from 2,3,4,4'-Tetramethoxybiphenyl-2-carbaldehyde. Comparison of Antitubulin Effects of Deaminocolchinyl Methyl Ether and Dehydro Analogs", Helvetica Chimica Acta, Vol. 72, pp. 1690-1696 (1989) CK Brodie, A.M., "Aromatase Inhibitors in the Treatment of Breast Cancer", J. Steroid Biochem. Mol. Biol., Vol. 49, Nos. 4-6, pp. 281-287 (June 1994) (Abstra

Examiner	Pandi	Date	2/14/02
Signature	laures	Considered	0/24/03

PTO/SB/08B (08-00)

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Substitute for Form 1449/A/PTO	Application Number	09/644,387	
INFORMATION DISCLOSURE	Filing Date	August 23, 2000	
	First Named Inventor	Gregory Agoston, et al.	
STATEMENT BY APPLICANT	Group Art Unit	1616	
(use as many sheets as necessary	Examiner Name	Badio, B.	
Sheet 3 of 8	Attorney Docket Number	05213-0541 (43170-219662)	

Examiner	Cite	OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	
Initials No.1		item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	1
1	DA	Chen, et al., "A New Synthetic Route to 2- and 4-Methoxyestradiols by Nucleophilic Substitution" Steroids,	Г
BB		Vol. 47, No. 1, pp. 63-66 (January 1986)	
1 . 1	DB /	Chen, et al., "Synthesis of 11.beta(4-dimethylaminophenyl)-17.betahydroxy-17.alpha(1-propynl) estra-4,	
	'	9-dien-3-one (RU486)", Nanjing Yaoxueyuan Xuebao, Vol. 17, No. 4, pp. 282-285 (1986) (Identifier Only)	
	DC	Cohen et al., "Novel Total Synthesis of (+)-Estrone 3-Methyl Ether, (+)-13B-Ethyl-3-methoxygona-1,3,5(10-	Г
1 -	/	triene-17-one, and (+)-Equilenin 3-Methyl Ether", The Journal of Organic Chemistry, Vol. 6, pp. 681-685	
. '		(March 21, 1975)	
11	$DD_{/}$	Collins, et al., "The Structure and Function of Estrogens. XI* Synthesis of (=/-)-7(8-11α)-abeo-Estradiol and its	
<u> </u>		9,11-Didehydro Derivative" Aust. J. Chem., Vol. 45, pp. 71-97 (1992)	
	DE	Cummings, et al., "Apoptosis", Am J. of Surgical Pathology, Vol. 21, No. 1, pp. 88-101 (1997)	Γ
	√		ĺ
1	DF	Crum et al., "A New Class of Steroids Inhibits Angiogenesis in the Presence of Heparin or a Heparin	Γ
	/	Fragment", Science, Vol. 230, pp. 1375-1378 (December 20, 1985)	
1 1			l
1	.DG	Cushman, et al., "Synthesis of Analogs of 2-Methoxyestradiol with Enhanced Inhibitory Effects on Tubulin	Г
	1	Polymerization and Cancer Cell Growth", J. Med. Chem., Vol. 40, No. 15, pp. 2323-2334 (July 1997) (Abstract	
		Only)	
	DH	Cushman, et al., "Synthesis, Antitiubulin and Antimitotic Activity, and Cytotoxicity of Analogs of 2-	Г
		Methoxyestradiol, an Endogenous Mammalian Metabolite of Estradiol that Inhibits Tubulin Polymerization by	
	•	Binding to the Colchicine Binding Site", J. Med. Chem., Vol. 38, No. 12, pp. 2041-2049 (1995)	
	DI	D'Amato, et al., "2-Methoxyestradiol, an Endogenous Mammalian Metabolite, Inhibits Tubulin Polymerization	Н
'	✓	by Interacting at the Colchicine Site", Proc. Natl. Acad. Sci., Vol. 91, pp. 3964-3968 (April 1994)	
	·		
	·DJ	Dvir, et al., "Thin-layer Chromatography of DANSYL-oestrogens", J. Chromatog. Vol. 52, pp. 505-506 (1970)	Η-
	./	, , , , , , , , , , , , , , , , , , ,	
1 . 1	V.		
	DK	Epe, et al., "Microtubular Proteins as Cellular Targets for Carcinogenic Estrogens and Other Carcinogens"	-
	✓.	Mechanisms of Chromosome Distribution and Aneuploidy, pp. 345-351 (1989)	
1	DL ,	Evans et al., "A Convergent Total Synthesis of (+)-Colchicine and (+)—Desacetamidoisocolchicine", J. Am.	
	✓	Chem. Society, Vol. 103, pp. 5813-5821 (1981)	
	DM	Fishman, Jack, "Synthesis of 2-Methoxyestrogens", J. Am. Chem. Soc., Vol. 80, pp. 1213-1216 (1958)	-
	/	, , , , , , , , , , , , , , , , , , ,	
733			

Examiner Signature	Badio	·	Date Considered	3/54/03	

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Statement form 1449/A/PTO		Application Number	09/644,387			
	INFORMA	TIO	A DISCLOSURE	Filing Date	August 23, 2000	
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PBI	EA)	Fitzgerald, "Molecular Features of Colchicine Associated with Antimitotic Activity and Inhibition of Tubulin Polymerization", Biochem. Pharmacol, Vol. 25, pp. 1383-1387 (1976)	
	EB	Fotsis, et al., "The Endogenous Oestrogen Metabolite 2-Methoxyoestradiol Inhibits Angiogenesis and Suppresses Tumour Growth", Nature, Vol. 368, pp. 237-239 (March 17, 1994)	
/	ÆC /	Getahun et al. "Synthesis of Alkoxy-Substituted Diaryl Compounds and Correlation of Ring Separation with Inhibition of Tubulin Polymerization: Differential Enhancement of Inhibitory Effects Under Suboptimal Polymerization Reaction Conditions", J. Med. Chem., Vol. 35, pp. 1058-1067 (March 20, 1992)	
1	ED	Gross, et al., "Inhibition of Tumor Growth, Vascularization, and Collagenolysis in the Rabbit Cornea by Medroxyprogesterone", Proc. Natl. Acad. Sci. USA, Vol. 78, No. 2, pp. 1176-1180 (February 1981)	
	EE	Haldar, et al., "Bc12 is the Guardian of Microtubule Integrity", Cancer Research, Vol. 57, pp. 229-233 (January 15, 1997)	
	EF/	Hamel, et al., "Interactions of 2-Methoxyestradiol, an Endogenous Mammalian Metabolite, with Unpolymerized Tubulin and with Tubulin Polymers", Biochemistry, Vol. 35, No. 4, pp.1304-1310 (1996)	
/	EG	Hartley-Asp et al., "Diethylstilbestrol Induces Metaphase Arrest and Inhibits Microtubule Assembly", Mutation Research, Vol. 143, pp. 231-235 (1985)	
. /	EH	He, Hu-Ming et al., "A Versatile Synthesis of 2-Methoxyestradiol, an Endogenous Metabolite of Estradiol Which Inhibits Tubulin Polymerization by Binding to the Colchicine Binding Site" Bioorg. Med. Chem. Lett., Vol. 4, No. 14, pp. 1725-1728 (1994)	
1	ÆI	Huber, et al., "Tubulin Binding of Conformationally Restricted Bis-Aryl Compounds", Bioorg. Med. Chem. Lett., Vol. 1, No. 5, pp. 243-246 (1991)	
	EJ	Josefsson, et al., "Suppression of Type II Collagen-Induced Arthritis by the Endogenous Estrogen Metabolite 2-Methoxyestradiol", Arthristis & Rheumatism, Vol. 40, No. 1, pp. 154-163 (January 1997)	
	EK/	Kabarity, et al., "Further Investigations on the cytological effects of some contraceptives" Mutation Research, Vol. 135, pp. 181-188 (1984)	
1	EL	Kelly, et al, "The Stimulation of Prostaglandin Production by Two Antiprogesterone Steriods in Human Endometrial Cells" J. Clin. Endocrinol Metab., Vol. 62, No. 6, pp. 1116-1123 (June 1986) (Abstract only)	J.
1	EM	Klauber, et al., "Inhibition of Angiogenesis and Breast Cancer in Mice by the Microtubule Inhibitors 2- Methoxyestradiol and Taxol", Cancer Research, Vol. 57, pp. 81-86 (January 1, 1997)	
BB	EN	Le Bras, J. et al. "Activation and Regioselective Ortho-Functionalization of the A-Ring of B-Estradiol Promoted by "Cp*Ir": An Efficient Organometallic Procedure for the Synthesis of 2-Methoxyestradiol", Organometallics, Vol. 16, pp. 1765-1771 (1997)	

			
Examiner Signature	Badis	Date Considered	3/24/83

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Sheet 5

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. ,	FA	Lilopristone/ 1-[4-(Dimethylamino)phenyl] -17-hydroxy-17-(3-hydroxy-1-propenyl) estra-4 9-dien-3-one: 7V	┼─
	. ✓	98734; Dictionary of Drugs, (1990), Dictionary of Steriods, (1991), Dictionary of Organic Compounds (6th Ed	ĺ
BB		1996), Dictionary of Pharmacological Agents (1997) (Identifier Only)	
	FB)	Lin et al., "Interactions of Tubulin with Potent Natural and Synthetic Analogs of the Antimitatic Agent	├
	1	Combretastatin: a Structure—Activity Study", Molecular Pharmacology, Vol. 34, No. 2, pp. 200-208 (August	
ł		1988)	1
~~	FC /	"Lincoln et al., "Conformation of Thiocolchicine and Two B-Ring-Modified Analogues Bound to Tubulin	 -
弱		Studied with Optical Spectroscopy", Biochemistry, Vol. 30, No. 5, pp. 1179-1187 (1991)	
	FD	Lichtenauer, et al., "Zur Behandlung des Prostata-Karzinoms", Deutsches Medizinisches Journal, Vol. 23, pp.	<u> </u>
		145-249 (1912) English translation regles	
BB	FE /	Lottering et al., "Effects of 17B—Extradiol Metabolites on Cell Cycle Events in MCF—7 Cells", Cancer	1
1/1/		Research, Vol. 52, pp. 5926-5932 (November 1, 1992)	ĺ
/	FF	Lottering, et al., "17B-Estradiol Metabolies Affect Some Regulators of the MCF-7 Cell Cycle", Cancer Letters,	
	′	Vol. 110, pp. 181-186 (1996)	
	FG.	Meikrantz, et al., "Apoptosis and the Cell Cycle", J. of Cellular Biochem. Vol. 58, pp. 160-174 (1995)	
1	1	1795)	
			1
	FH	Willow at al. "Co-stand of an all the D. Cl. Co. Y.	
	FR /	Miller, et al., "Synthesis and Structure-Activity Profiles of A-Homoestranes, the Estratropones", J. Med. Chem., Vol. 40, pp. 3836-3841 (1997)	
	FI	Miller, Thomas Allen "Tubulin as a Therapeutic Target", DAI-B, Vol. 59, No. 7, p. 3454 (January 1999) (Abstract Only)	
1	FJ	Morgan, et al., "Calcium and Oestrogen Interactions upon the Rat Thymic Lymphocyte Plasma Membrane",	
BB		Biochemical and Biophysical Research Communications, Vol. 72, No. 2, pp. 663-672 (September 20, 1976)	
		Morgan, et al., CA 85:172052, 1976 lopy not provided	
6	FL	Mukhopadhyay, et al. "Induction of Apoptosis in Human Lung Cancer Cells after Wild-Type p53 Activation by	
23	V	Methoxyestadiol", Oncogene, Vol. 14, pp. 379-384 (1997)	
	FM/	Mukundan et al., "Liver Regeneration in Oral Contraceptive Treated Female Rats - Effects of Moderate	
	· /	Malnutrition", Hormone and Metabolic Research, Vol. 16, pp. 641-645 (December 1984)	
	FN	Nakamura et al., "Studies on the Total Synthesis of dl-Colchiceine. I. Synthesis of 3-Hydroxy-9 10 11-	
	✓ 	trimethoxy-1,2,3,4,6,7-hexahydro-5 <i>H</i> -dibenzo[<i>a,c</i>] cycloheptatrien-5-one", <u>Chem. Pharm. Bull.</u> , Vol. 10, pp. 281-290 (1962)	
/	FO	Nakagawa-Yagi, et al., "The Endogenous Estrogen Metabolite 2-Methoxyestradiol Induces Apoptotic Neuronal	
عوائد		Cell Death In Vitro", Life Sciences, Vol. 58, No. 17, pp. 1461-1467 (1996)	
BB		 ` ' - '	j

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Applicati n Number	09/644,387
Filing Date	August 23, 2000
First Named Inventor	Gregory Agoston, et al.
Group Art Unit	1616
Examiner Name	Badio, B.
Attorney Docket Number	05213-0541 (43170-219662)

		OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
77	HA	Sawada et al., "Colchicine-Like Effect of Diethylstilbestrol (DES) on Mammalian Cells in Vitro", Mutation Research, Vol. 57, pp. 175-182 (1978)	
	нв	Seegers, J. C. et al., "The Cytotoxic Effects of Estradiol-17β, Catecholestradiols and Methoxyestradiols on Dividing MCF-7 and HeLa Cells", J. Steroid Biochem, Vol. 32, No. 6, pp. 797-809 (1989)	
	HC	Sharp et al., "Diethylstilboestrol: the Binding and Effects of Diethylstilboestrol upon the Polymerisation and Depolymerisation of Purified Microtubule Protein in vitro", Carcinogenes, Vol. 6, No. 6, pp. 865-871 (1985)	
	HD √	Spicer et al., "Catecholestrogens Inhibit Proliferation and DNA Synthesis of Porcine Granulosa Cells in Vitro: Comparison with Estradiol, 5α-dihydrotestosterone, Gonadotropins and Catecholamines", Molecular and Cellular Endocrinology, Vol. 64, pp. 119-126 (1989)	
	HE	Sternlicht et al., "Colchicine Inhibition of Microtubule Assembly via Copolymer Formation", The Journal of Biological Chemistry, Vol. 254, No. 20, pp. 10540-10550 (1979)	
	HF ✓	Sun et al., "Antitumor Agents. 139. Synthesis and Biological Evaluation of Thiocolchicine Analogs 5, 6-Dihydro-6(S)-(acyloxy)- and 5,6-Dihydro-6(S)-[(acyloxy)methyl]-1,2,3-trimethoxy-9-(methylthio)-8H-cyclohepta[a]naphthalene-8-ones as Novel Cytotoxic and Antimitotic Agents.", J. Med. Chem., Vol. 36, pp. 544-551 (1993)	
1	HG ∠	Sunagawa et al., "Synthesis of Colchicine; Synthesis of dl-Demethyoxydeoxy-hexahydrocolchicine", Chem. Pharm. Bull., Vol. 9, pp. 81-83 (1961)	-
	.HH ✓	Teranishi, Masonori, et al., "Methylation of Catechol Estrogen with Diazomethane", Chem. Pharm. Bull., Vol. 31, No.9, pp. 3309-3314 (1983)	
1.	HI 🖋	Tishler, et al., "Microtubule-Active Drugs Taxol, Vinblastine, and Nocodazole Increase the Levels of Transcriptionally Active p53", Cancer Research, Vol. 55, pp. 6021-6025 (December 15, 1995)	
1	·HJ	Tsutsui et al., "Comparison of Human Versus Syrian Hamster Cells in Culture for Induction of Mitotic Inhibition, Binucleation and Multinucleation, Following Treatment with Four Aneuploidogens", <u>Toxic in Vitro</u> , Vol. 4, No. 1, pp. 75-84 (1990)	
	HK √	Utne, T., et al. "The Synthesis of 2-and 4-Fluoroestadiol", <u>Journal of Organic Chemistry</u> , Vol. 33, No. 6, pp. 2469-2473 (June 1968)	
	HL	Van Geerestein, et al. "Structure of 11.beta(4-(dimethylamino)phenyl)-17.betahydroxy-17.alpha(2-propenyl) e stra-4, 9-dien-3-one, Acta Crystall Ogr., Sect. C: Cryst. Struct. Commun., Vol. C43, No. 2, pp.319-322 (1987) (Identifier Only)	
BB	HM	Van Tamelen et al., "The Synthesis of Colchicine", Tetrahedron, Vol. 14, p. 8-34 (1961)	

Examiner Signature	Poodeo	Dat Considered	2/24/03

PTO/SB/08B (08-00) Approved for use through 10/31/2002 OMB 0651-0031

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Complet if Known **Application Number** 09/644,387 **Filing Date** August 23, 2000 **First Named Inventor** Gregory Agoston, et al. **Group Art Unit** 1616 **Examiner Name** Badio, B. **Attorney Docket Number** 05213-0541 (43170-219662)

			OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS	
Examine Initials	ar	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T*
	7	IA ,	Wang, Zhiqiang, et al., "An Optimized Synthesis of 2-Methosyestradiol, a Naturally Occurring Human	
BR	7		Metabolite with Anticancer Activity" Synth. Commun. Vol. 28, No. 23, pp. 4431-4437 (1998)	
) ;		IB /	Wheeler, W. J. et al., "Mitotic Inhibition and Aneuploidy Induction by Naturally Occurring and Synthetic Estrogens in Chinese Hamster Cells in Vitro", <u>Mutation Research</u> , Vol. 171, pp. 31-41 (1986)	
	1	IC ,√	Wheeler, W. J. et al., "Mitotic Inhibition and Chromosome Displacement Induced by Estradiol in Chinese Hamsters Cells", Cell Motility and the Cytoskeleton, Vol. 7, No. 3, pp. 235-247 (1987)	
		ID /	Yue, et al., "2-Methoxydestradiol, an Endogenous Estrogen Metabolite, Induces Apoptosis in Endothelial Cells and Inhibits Angiogenesis: Possible Role for Stress-Activated Protein Kinase Signaling Pathway and Fas Expression", Molecular Pharm. Vol. 51, pp. 951-962 (1997)	
	/	IE /	Guangrong, et al., "Effect of Components of Crown Ether Copper(I)Iodide Mixed Catalyst on Nucleophilic Substitution of Bromoestrogen" Chemical Abstracts, Vol. 111, No. 21, Abstract No. 195225, page 818, Column 1, (November 20, 1989)	
<i>s</i> -1		IF /	The Merck Index, 11th Edition, paragraphs 583-584, pp. 88 (1989)	
		IG _. ✓	Ochs, et al., "Effect of Tumor Promoting Contraceptive Steriods on Growth and Drug Metabolizing Enzymes in Rat Liver", Cancer Res., Vol. 46, No. 3, pp. 1224-1232 (1986) (Abstract)	
BI	3	IH ✓	Mayol, et al., "Ethynylestradiol- Induced Cell Proliferation in Rat Liver Involvement of Specific Populations of Hepatocytes", Carcinogenesis, Vol. 12, No. 12, pp. 2381-2388 (1992) (Abstract)	
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